DIGITAL SATELLITE METER

SM2500

USER'S MANUAL

Please read this manual carefully before using your meter for the first time.

The technical specifications and operating methods included in this manual are subject to changes without notice. In case of any inquires after a period of usage, please contact the manufacturer.

Please charge the battery before using your meter for the first time.
(Recommend 5 hours)

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Chapter I Introduction

This meter is simple and convenient for setting and aligning a satellite dish. Using the parameters of satellite, you can set and align a satellite dish quickly, easily and accurately.

Chapter II Function

A. Front Panel

<Figure1-1>

(1) LNB INPUT：

Satellite signal input port, connects directly to satellite antenna using coaxial cable.

(2) LCD Screen：

Shows MENU and Programs clearly

(3) Power Light：

Indicate the power status.
Normally,
Red: the meter is power on,
Dim: the meter is power off,
Charge,
Green: the battery is being charged,
Red: the battery is full.

(4) Lock Light：

This light will be on when signal is locked.

(5)22K/13V/18V light

Indicate the 22K/13V/18V

(6) Function Key：

Made of four keys, F1 -- F4.
(Tip)F1: turn on or off the LCD screen
F2: Mute
F3：To show information about the current program

(6) Arrow Key and OK key：

Use the Arrow key to select the right item, OK key to confirm.

(7) Numerical Key：

To enter numerical settings directly.

(8) FIND Key:

Go to the easy satellite find menu, can set and align a satellite dish quickly.

(9) MENU Key:

To enter or exit the main menu.

(10) EXIT Key：

To exit from the present menu and move to the previous menu

(11)ANGLE Key：

Go to the AZ , EL and Polarity calculation menu

(12) SYSTEM Key：

To set all system parameters.

(13) Power Key：

To turn the meter on/off， press and hold for 2 seconds to power on the meter.

(14) Scan Key

Go to auto scan menu and scan channels

(15) Charge port:

To connect with the charger cord.

(16) USB Port:

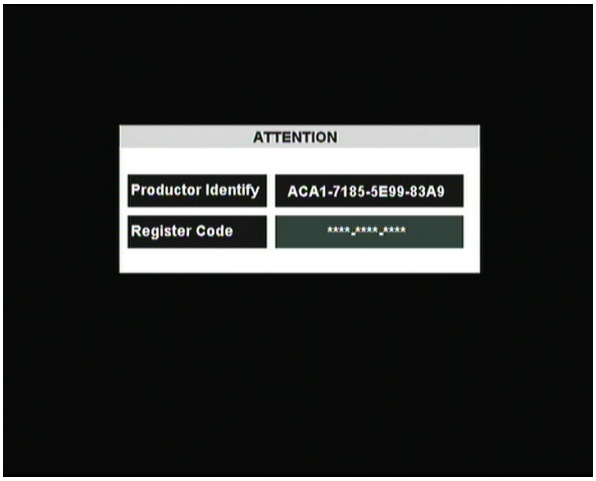
Connect to PC to upgrade .

B. Quick Operation

Through this function, user can quickly and easily find the right satellite and accurately set the dish.

Input the Register Code

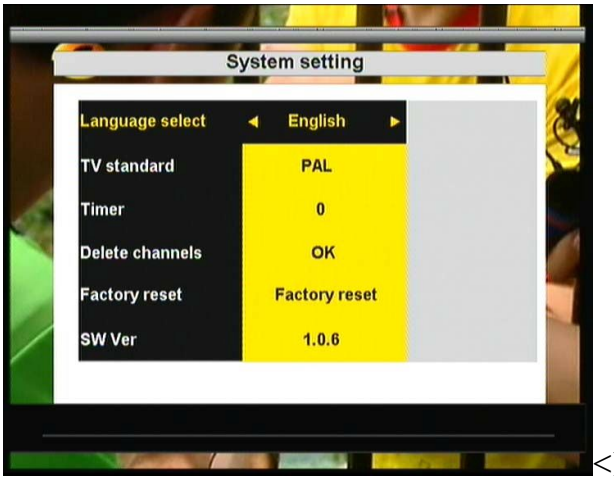
When you turn on the Meter first time or when you reset the Meter, it may need input the Register Code<Figure2-1>



<Figure2-1>

1. Menu language Setting

1. Turn on your satellite meter
2. Press the SYSTEM button to display the system setting menu <Figure2-2>



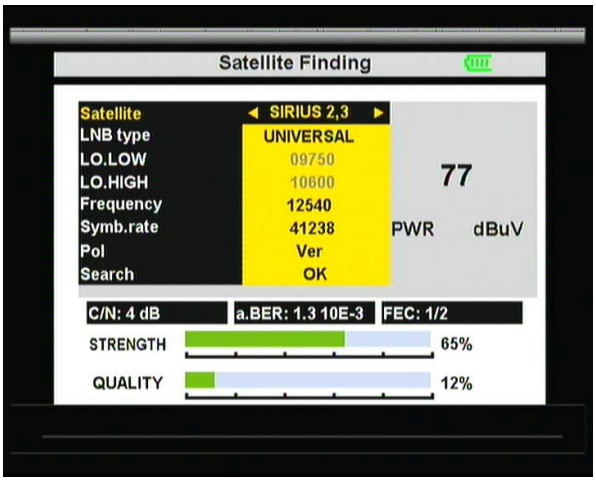
<Figure2-2>

3. Use [◄][►] button to change the language . Select the language that you want .

4. TV Standard : TV output standard

2. Quick operation guide

1． Press the FIND button to display the signal finding menu <Figure2-3>



<Figure2-3>

2. Use [◄][►] button to select the satellite .

3. Select the item that you want to edit, and set its parameters as desired.

LNB Type：Use [◄][►] button to choose LNB Type

LOW L.O.F：Use digital button to input the LOW L.O.F once the LNB Type is Customised

HIGH L.O.F：Use digital button to input the High L.O.F once the LNB Type is Customised

4．Use [◄][►] button to select the TP frequency you want.

FREQUENCY：Set its parameters, can input numerically .

SYMBOL RATE：Set its parameters, can input numerically .

POLARITY：Select between Vertical and horizontal.

5. When signal finding: you can see the bar meter of the LEVEL and QUALITY, and the numerical of C/N ,FEC, a.BER (after BER) at the same time the LOCK light will come on and the speaker will notify.

6. Adjust the dish slightly to get the strongest signal

7. Go to “SERACH” and press “OK” to scan for channels.

C. Detailed operation Guide

1. Turn on the equipment

Press and hold POWER button for 2 seconds to turn on the satellite meter

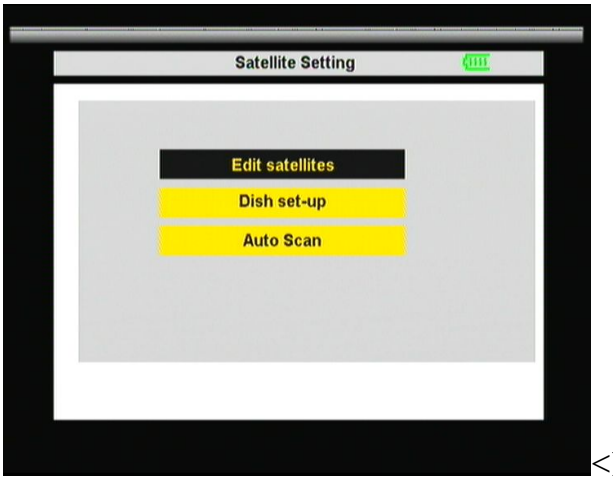
2. Satellite Setting

(1) EDIT SATELLITE

a. Press the MENU button to display the main menu

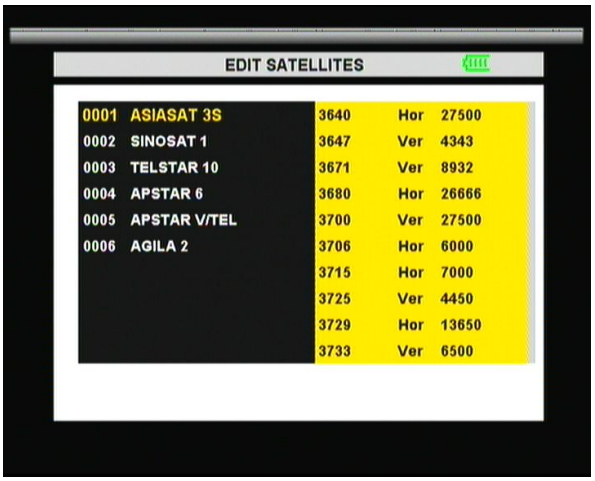
b. Use[▲][▼]button to move cursor

c. Press OK on ‘SATELLITE SETTING’ The following window will appear.<Figure2-4>



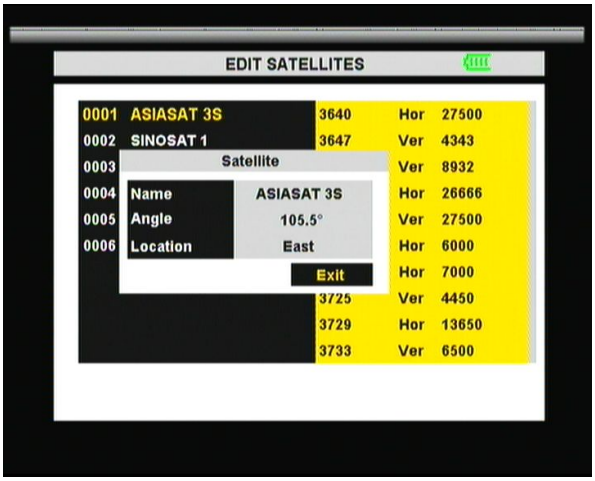
<Figure2-4>

d. Press OK on ‘EDIT SATELLITE’ The following window will appear<Figure2-5>



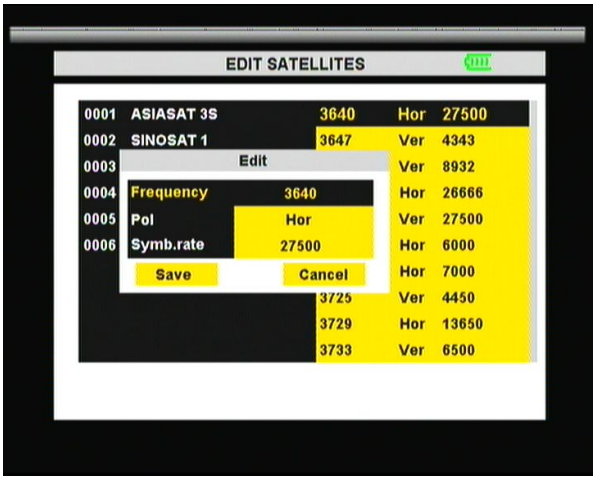
<Figure2-5>

e. Use [◄][►] button to move cursor, it’ll show the satellite name ,angle and location. <Figure2-6>



<Figure2-6>

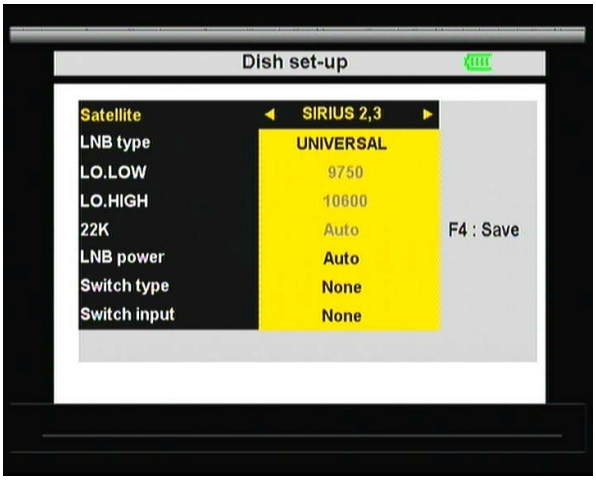
f. Use [►] to move to TP list , and press OK , you can modify Frequency, Pol and symbol rate<Figure2-7>



<Figure2-7>

(2) DISH SET-UP

a. Press OK on 'DISH SET-UP' The following window will appear,<Figure2-8>



<Figure2-8>

b. Use [▲][▼]to move cursor

c. Use [◄][►]button to select the item you want

LNB Type： Use [◄][►] button to choose LNB Type between UNIVERSAL/5150/9750/10750/Customised

LOW L.O.F： Use digital button to input the LOW L.O.F once the LNB

Type is Customised

HIGH L.O.F：Use digital button to input the High L.O.F once the LNB Type is Customised

22K : choose among AUTO/ON/OFF

SWITCH TYPE : choose NONE/DiSEqC1.0

SWITCH INPUT: choose from 1/2/3/4 input

(3) AUTO SCAN

a. Use[▲][▼]button to move cursor

b. Use [◄][►]button to select the item you want

SATELLITE : choose the SATELLITE you want

TRANSPONDER: choose the TRANSPONDER you want

NETWORK SEARCH : ON/OFF

MODE: ALL/ FTA/SCRAMBLED

SERACH: choose SATELLITE/TRANSPONDER

3. System Setting

(1) TV STANDARD

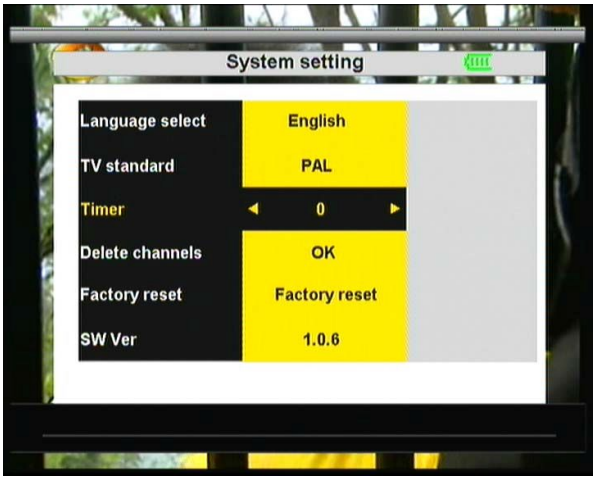
This menu allows you to specify the video output

Video Format： Select the video output format.(Auto/PAL/NTSC)

(2) TIMER

Through this setting you can select the satellite meter LCD shut off time

a. Press SYSTEM button to display the system setting menu<Figure2-9>



<Figure2-9>

b. Use [◄][►] button to select shut off LCD screen time

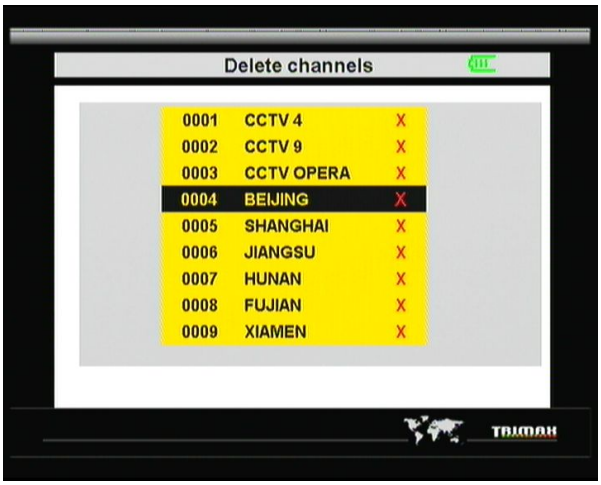
(3) DELETE CHANNELS

Through this menu you can delete the channels that you want

a. Press SYSTEM button to display the system setting menu

<Figure2-9>

You can use [▲][▼] select the channels you want to delete, And press “OK” to select <Figure2-10>

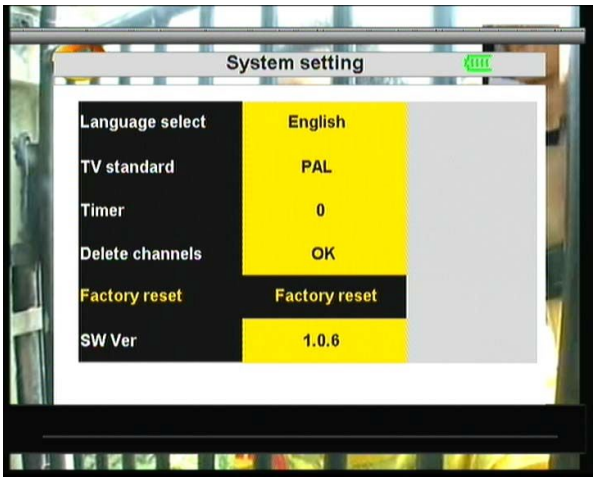


<Figure2-10>

Also you can press F2 to choose all the channels

(4) FACTORY RESET

This sub menu allows you to restore the factory default value<Figure2-11)



<Figure2-11)

Factory Reset：Erase all channels and restore the factory default settings.

4. Channel Selection

Press “OK”,You can use [▲][▼] to navigate between channels until you find the channel you want<Figure2-12>

<Figure2-12>

If you know the channel number, you can enter it with the NUMERIC buttons and wait 2 seconds until the channel is changed

5. Channel Information

While watching a channel, you can press the F3 button to display the information menu <Figure2-13>

<Figure2-13>

Use this menu to check the satellite name, channel name, TP parameters, Signal intensity, etc.

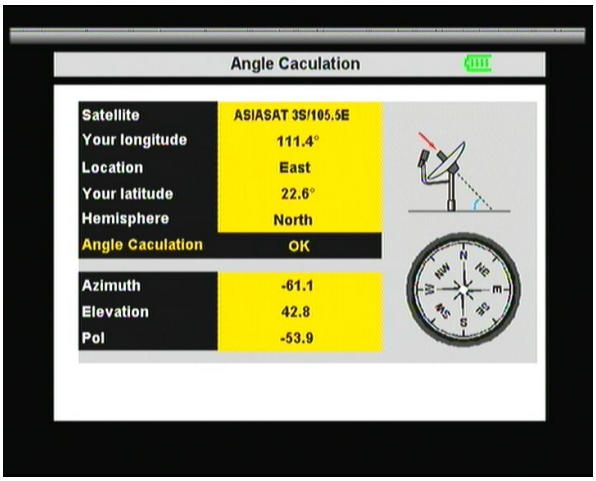
6. SYSTEM button

You can check the current information about your satellite meter such as meter S/W(software) version, <Figure 2-10>

Note： This information is useful to see if there is a newer software available.

7. Calculation

Press the ANGLE button to display the Calculation menu <Figure2-14>



<Figure2-14>

SATELLITE : choose the satellite you want

Your longitude : input your local longitude

Location : input your local location

Your Latitude: input your local latitude

Hemisphere: input your local Hemisphere

Antenna azimuth: shows the azimuth of the chosen satellite.

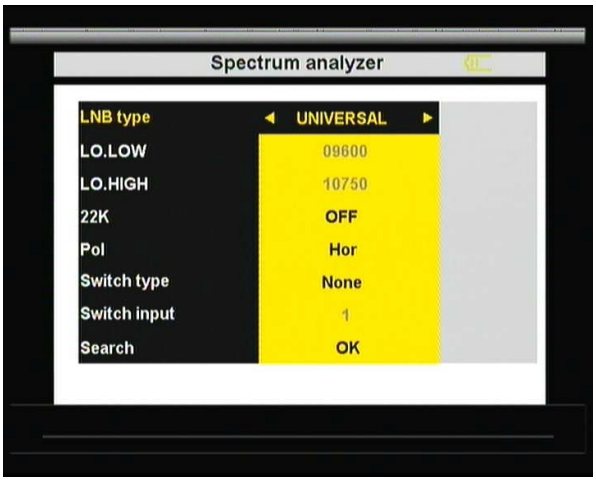
Antenna elevation: shows the elevation of the chosen satellite.

Antenna Polarity: shows the polarity angel of the chosen satellite

8. Spectrum Analyzer

1. Go to MENU, choose SPECTRUM ANALYZER, and press OK

You will see the picture<Figure2-15>



<Figure2-15>

Use [▲][▼]to move cursor

Use [◄][►]button to select the item you want

LNB Type：Use [◄][►] button to choose LNB Type among

UNIVERSAL/5150/9750/10750/Customised

LOW L.O.F：Use digital button to input the LOW L.O.F once the LNB

Type is Customised

HIGH L.O.F：Use digital button to input the High L.O.F once the LNB

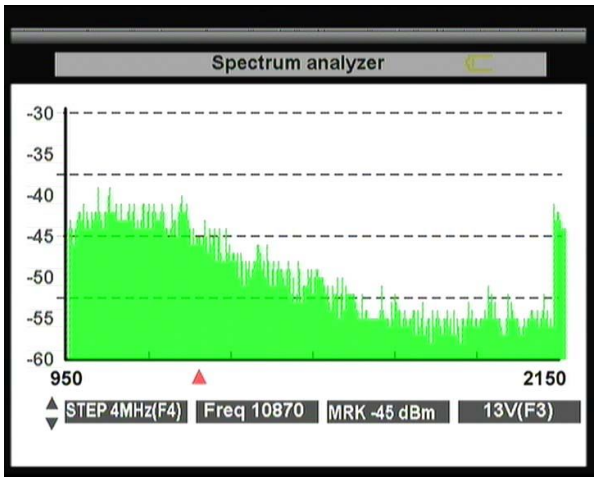
Type is Customised

22K : choose between ON/OFF

SWITCH TYPE : choose NONE/DiSEqC1.0

SWITCH INPUT: choose from 1/2/3/4 input

Search : press OK, you will see the spectrum<Figure2-16>



<Figure2-16>

You can choose the Spectrum step between 4 MHz and 16MHz (Tip: 16MHz will be faster)

F3: press F3 to choose 13V and 18V

Use [◄][►]button to choose the Frequency you want

use [▲][▼] signal strength showing (-70dBm----10dBm)

Chapter III Specifications

System capabilities	Fully DVB compliant	Yes
LNB/Tuner input	Connector	F type, male
	Frequency range	950MHz-2150MHz
	Signal lever	-65dBm~-25dBm
	LNB supply	13/18V,max400mA
	LNB switch control	22KHz
	DiSEqC	Ver 1.0
Demodulator	Front end	QPSK
	Symbol rate	2Mbps~45Mbps
	SCPC and MCPC Capable	Yes
	Spectral inversion	Auto conversion
System resource	Processor	32bit processor (200MHz)
	SDRAM	16Mbyte
	FLASH	2Mbyte
	EEPROM	8Kbyte
Video decoder	MPEG 2	Main Proflie@Main Level
	Data Rate	up to 15M bits/s
	Resolution	720*576,720*480
	Video format	PAL/NTSC/SECAM
MPEG Audio	MPEG 1 layer 1&2	
	Type	Mono
	Sampling rates	32,44.1 and 48KHz
Serial data interface	Connector	USB type
Power supply	Li-oN Battery	1950 mA
	Supply voltage	12.6Volt
	charger	90-240V
Panel connectors	Digital tuner input	F type, male
Physical Specification	Size	9.5x15.5x4.5 (cm)
	Weight(Net)	0.5 Kg